

The Impact of Internal and External Factors on Financing of Sharia Banks in Indonesia

Raras Palupi Astarini¹, Sri Hartoyo², Tubagus Nur Ahmad Maulana³

¹School of Business, Bogor Agricultural University (IPB), Jl. Raya Pajajaran Bogor Indonesia 16151, Indonesia

Abstract: *Financing has an important role for the community and the bank. This research aims to find out the factors influencing the financing level (Small and Medium-sized Enterprises or SME Financing and non-SME Financing) of sharia banks in Indonesia from 2010 until June 2015 by using multiple linear regression model. The results of this research indicate that all of the variables, namely Bank Indonesia Sharia Certificate or SBIS's bonus rate, inflation rate, Third-party Funds (DPK), Non-Performing Financing (NPF), Financing to Deposit Ratio (FDR), Return on Assets (ROA) simultaneously influence both SME and non-SME financing. Partially, SBIS's bonus rate has no impact on sharia banks' financing in Indonesia; Inflation has a negative impact on both financing; DPK and FDR has a positive impact on both financing; NPF has a negative impact on SME financing but has no impact on non-SME financing; and ROA has no impact on both financing*

Keywords: Sharia banks' financing, SBIS's bonus rate, Inflation rate, Internal factors, Multiple linear regression model

1. Introduction

During these last ten years, sharia banking in Indonesia have been experiencing a significant enhancement. It is reflected in the number of Sharia Commercial Bank (BUS), Sharia Business Unit (UUS), office network, human resources, and total assets which increase significantly. The intermediary function of sharia banking can be recognized from its Financing to Deposit Ratio (FDR). Despite the tendency of being unstable, the FDR of sharia banking in Indonesia remains in a safe range determined by Bank Indonesia (BI) which is from 80% until 110%.

That development leads to an increase in financing. Financing is the primary activity of banking, both conventional and sharia banking and it is vital for commercial banks. Therefore, banks must pay attention to various factors and aspects that must be taken into account on financing for community.

Moreover, according to Firdausy (2005) and LIPI (2014), MSMEs play a big role in Indonesian economy. For example, they contribute to the Gross Domestic Product (GDP), jobs creation, increase in export value, and poverty alleviation. In spite of the notable roles owned by MSMEs, many of them have limited funds to expand their business. It can become an opportunity for the banks to increase their market share. However, based on The Financial Services Authority (OJK), since 2014, sharia banks in Indonesia distributes the majority of their funds to non-SMEs. Therefore, the researcher is interested to analyze the factors influencing financing performed by sharia banking which now is mainly directed to non-SMEs.

An empirical study discovers that there exist internal and external influences on financing activity by the banks. Previous researcher finds that internal and external factors simultaneously influence financing by the banks. Nevertheless, if those factors are partially tested, the research gap is found. Therefore, this research aims to analyze the financing of sharia banks in Indonesia and the factors influencing it.

1.1 The impact of internal factors financing

Third-party Funds (DPK) are the largest and reliable source of fund for the banks. The banks can utilize this DPK to be placed in profitable posts, one of which is in the form of credit or financing. Based on Siamat (1993), Rose-Kolari (1995), Suyatno (2001), and Sudarsono (2003), one of funds which can be used for financing is saving. Saving has the strongest impact on financing because it is the biggest asset of sharia banking so that it can affect financing. Therefore, the higher the saving rate is owned, the higher the banks' capability in financing.

The banks need to pay attention to their profitability aspect. According to Yuliana (2014), profitability is the reference of measuring profits, in which the profits achieved by the banks are the reflection of their performance in managing their assets. However, big profits are not a benchmark of the banks' performance efficiency. The banks' performance efficiency can be identified from their rentability ratio which is the benchmark of bank capital's ability in yielding profits. The common used rentability ratio is Return on Assets (ROA). Simorangkir (2004) states that high profits lead bank to obtain trust from the community in the sense that the bank has been able to accumulate more capital so that it has a wider chance to provide loan. This statement is also supported by Muljono (2003) who reveals that ROA ratio is one of ratios which can influence the budgeting of credit volume.

Aside from paying attention to profits, the banks also must consider the available risks in investing their funds. Reflecting the economic principle of high risk high return, credit distribution or financing performed by the banks has the highest return compared to investing funds in the other form with a very high risk. Credit risk in sharia banks can be observed from their Non-performing Financing (NPF) which is a percentage of problematic financing with a potential of unable to be billed against total financing provided by the bank. The higher this risk, the worse the bank's financing quality which causes the higher number of problematic financing. It can contribute to a lower profits achieved by the bank because the bank must bear the loss in its

operational activity. Therefore, NPF ratio is kept in certain level, if the level is exceeded, the sharia bank will push the figure down.

In addition, the banks must notice liquidity rate which can be measured by Financing to Deposit Ratio (FDR). In accordance with Riyadi (2014), FDR value can indicate the bank effectiveness in financing. Excessively high or low FDR value is considered as ineffective, so that it affects the bank's profits. In terms of liquidity measurement, the higher the FDR, the lower the liquidity rate of the bank. It is because all funds gained have been distributed through financing hence there is no excess funds to be loaned or reinvested.

1.2 The impact of external factors financing

Financing undertaken by sharia banks in Indonesia is one of their principal roles, however according to Muhammad (2005), financing by sharia banks in Indonesia has business risk. The risk encountered by sharia banks if there is an excessive financing to the community is liquidity risk. Therefore, BI issues a new regulation related to Bank Indonesia Sharia Certificate (SBIS), with a much higher yields from Bank Indonesia Wadiah Certificate (SWBI) and competitive with the interest rate of Bank Indonesia Certificate (SBI). That regulation is designed to make the sharia banks in Indonesia more interested to distribute their funds for investment in SBIS and reduce their financing.

Other external factors which can influence the banking policy related to the funds that will be invested are inflation rate. Inflation reflects the national economic stability. If the inflation rate rises, people will tend to decrease their saving or investment. This will cause the banks' assets to decline in real terms, thus influencing their capability in distributing credits. Priatmadja (2011), Priyanto(2015), Martino (2014) argue that inflation rate has an impact on NPF which must be dealt with by sharia banking industry. The higher the inflation rate, the higher the possibility of the NPF which will lead to the increase of Risk-weighted Assets (ATMR) due to the rising need of bank capital. This will cause the banks to have a lower capacity in financing expansion

2. Data

The data used in this research are secondary data from BI, OJK, and Statistics Indonesia (BPS) which cover the data of SBIS's bonus rate (SBIS), inflation rate (INF), DPK, NPF SME (NPF1), NPF non-SME (NPF2), FDR, and ROA. The data gathered are the data from 2010 until June 2015 in monthly basis.

3. Methodology

The methods of multiple linear regression is utilized in this research to analyze the influence of various internal and external factors on the amount of financing in sharia banks for SMEs and non-SMEs. In order to attain the purpose of this research, a classical assumption test is required to do to ensure whether the multiple linear regression models being analyzed do not possess any problem of normality, multicollinearity, heteroskedasticity, and autocorrelation. If those requirements are met, the models will be eligible to use.

$$\text{SME financing} = \alpha + \alpha_1\text{DPK} + \alpha_2\text{NPF1} + \alpha_3\text{FDR} + \alpha_4\text{ROA} + \alpha_5\text{SBIS} + \alpha_6\text{INF} + \alpha_7Y_2 + \varepsilon$$

in which $\alpha_1, \alpha_2, \alpha_4, \alpha_7 < 0$ and $\alpha_3, \alpha_5, \alpha_6 > 0$

$$\text{Non-SME financing} = \beta + \beta_1\text{DPK} + \beta_2\text{NPF2} + \beta_3\text{FDR} + \beta_4\text{ROA} + \beta_5\text{SBIS} + \beta_6\text{INF} + \beta_7Y_1 + \varepsilon$$

in which $\beta_1, \beta_2, \beta_4, \beta_7 < 0$ and $\beta_3, \beta_5, \beta_6 > 0$

Information:

SME financing: The amount of financing distributed to SMEs (billion rupiah)

Non-SME financing: The amount of financing distributed to non-SMEs (billion rupiah)

$\alpha_1, \dots, \alpha_7$ and β_1, \dots, β_7 : Coefficient of variables

SBIS : Auctioned SBIS's bonus rate (%)

INF : Monthly inflation rate (%)

DPK : Third-party funds (billion rupiah)

NPF1 : NPF SME (%)

NPF2 : NPF non-SME (%)

ROA : Return on Assets

FDR : Financing to Deposit Ratio

4. Empirical result

4.1 The development of sharia banking's performance in Indonesia

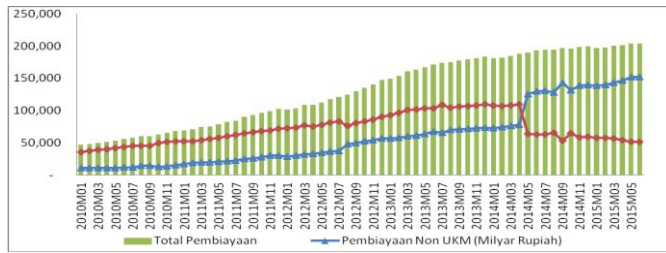
The enhancement of sharia banking's performance in Indonesia during the analyzed period is reflected in Table 1. From 2010 until June 2015, sharia banking intensifies its financing for community. There is a rise in the number of DPK followed by a growing financing in those periods. This shows an escalation of sharia banking's intermediary function which is also reflected by increased FDR in those periods. Despite the rising financing in those periods, the NPF ratios in those periods are tend to decline until 2012. This indicates that sharia banks have enhanced their circumspection in distributing funds to the community. The decrease of NPF ratios occurred from 2010 until 2012 causing the ROA ratios in those periods to increase, meanwhile after those periods, the ROA ratios tend to diminish along with the rise of NPF ratios

Table 1: The development of sharia banking's performance Indonesia

Year	DPK (billion rupiah)	Financing (billion rupiah)	ROA (%)	FDR (%)	NPF (%)
2010	76 036	6 818	1.67	89.67	3.01
2011	115 415	102 655	1.79	88.94	2.52
2012	147 512	147 505	2.14	100	2.22
2013	183 534	184 122	2	100.32	2.62
2014	217 858	199 330	0.79	91.50	4.33
June 2015	215 339	203 894	0.89	96.52	4.76

Source: OJK

The rising financing by sharia banks in Indonesia is followed by their rising financing for non-SMEs whereas the financing for SMEs starts plummeting in the mid 2014 and steadily declining afterwards. In fact, before the plummet happened, the majority of funds from sharia banks in Indonesia goes to the SMEs as depicted in Figure 1.



Information: Green bars are total financing; blue line is non SME financing; red line is SME financing

Figure 1: Financing of sharia banks in Indonesia by group of SME and non-SME, 2010-June 2015

There are several reasons why SME sector is less desirable by the banks even though it contributes to the national economy, namely (Wahyudi *et al.* 2013: 84): (1) There has not any standard financial report; (2) There is no adequate guarantee; (3) Low technology mastery; (4) The founder(s) and managers of SMEs tend to not having an adequate track record in managing business. Besides, the values of financing provided to the SMEs are little with a huge numbers of SMEs. The huge numbers will lower the banks' operational efficiency owing to the high monitoring cost for the banks. This matter causes the banks to demand a higher yields from the SMEs' debtors as a compensation for the potential of increased problematic credits as a result of mistakes in holding the debtors. This is in accordance with the principle of high risk high return.

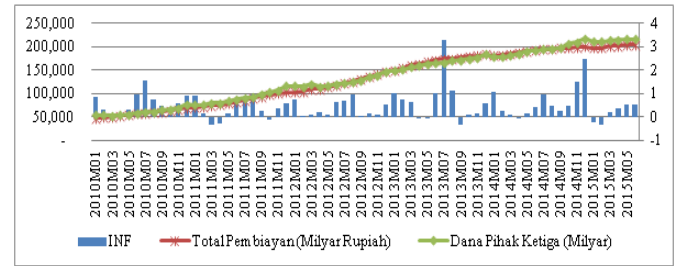
The financing performed by BUS and UUS in all provinces in Indonesia are relatively uneven. The majority of financing by BUS and UUS goes to Java island, especially Special Capital Region (DKI) of Jakarta. In early 2010, the financing from BUS and UUS are mostly channeled to SMEs in all provinces in Indonesia, except South Sumatera, Bangka Belitung, West Sulawesi, and West Papua which most of the financing are channeled to non-SMEs. However, in the end until June 2015, most of the financing in all provinces of Indonesia are presented to non-SMEs.

Chakraborty and Ray (2002) in Ghassani (2014) argue that banking, both conventional and sharia, possesses essential roles in a national economy because it can accelerate the economic growth through financing. Azansyah (2008), Levine *et al.* (2000), and Onder and Ozyildirim (2013) also declare that national economic development depends on the dynamics of banking sector development so that if banking sector advances, the economic growth will also advances. Therefore, the inequality of financing throughout Indonesia can cause an unequal economy throughout Indonesia.

4.2 The Linkage between external factors and financing

In relation with the impact of inflation on the ability of sharia banks in accumulating DPK, the theory of the high inflation rate will lower the customers' or prospective

customers' desire to save and increase their preference to consume during the analyzed periods is not visible.



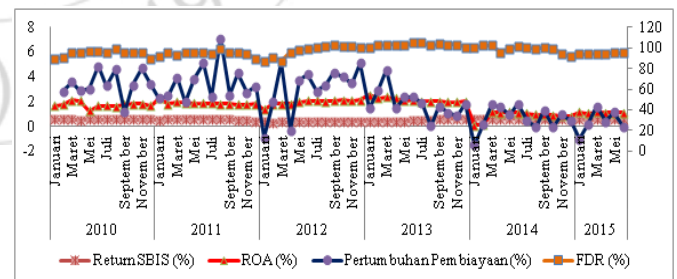
Information: Red line is total financing (billion rupiah); green line is DPK (billion)

Figure 2: The linkage between inflation, total financing, and DPK

Figure 2 portrays that inflation rate does not significantly affect sharia banks' ability in collecting funds as strengthened by the researches' result of Hadziq (2011) and Setiawan (2014). From 2010 until June 2015, the amounts of DPK successfully collected by BUS and UUS are tend to go up although the inflation rate changes significantly. The rise of DPK gathered by BUS and UUS leads to the rise of financing by BUS and UUS across Indonesia.

Other external factor which can influence financing of sharia banks is SBIS's bonus rate specified by BI. Besides placing their funds in financing, sharia banks also place their funds in the form of securities, for instance SBIS. This matter will affect FDR as presented in Figure 3.

From 2010 until June 2015, sharia banks in Indonesia implement their intermediary function and have a relatively good liquidity (FDR are between 80% and 110%). SBIS's returns tends to fall from 2010 to February 2012 and is followed by an increasing FDR because in those periods, sharia banks in Indonesia are more interested in using their funds for financing. In consequence, the total financing and sharia banks' profitability (ROA) undergo a rise.



Information: Blue line is the growth of financing (%)
Figure 3: The linkage between SBIS's return, FDR, ROA, and the growth of financing, 2010-June 2015

After those periods until June 2015, the SBIS's rates of return tend to increase. FDR should have a tendency to decline when the SBIS's rates of return increases because SBIS's high rates of return are expected to raise the desire of sharia banks place their funds in the form of SBIS so that it will reduce their ability to do financing for the community. However, when SBIS's rates of return tend to go up from 2012 until June 2015, the FDR of sharia banks also tend to go up. This indicates that sharia banks in Indonesia still

prefer investing in the form of financing rather than investing in the form of SBIS.

The tendency of a rise in the FDR of sharia banks in Indonesia at first is followed by a rise in financing by them. However, from mid 2012 until June 2015, the financing by sharia banks in Indonesia tend to fall even though their FDR tend to rise. This case happens because of a decreasing DPK collected by sharia banks in Indonesia. In order to maintain the liquidity rate, sharia banks in Indonesia decide to lower their financing for community. Other impact in those periods is the decrease of sharia banks' ROA.

4.3 The Impact of internal and external factors on financing

Several outputs from data processing using Eviews 9 are not presented due to the limited page requirement. Based on the results of classical assumption test, the data have passed classical assumption test. Therefore, the models in this research can be used. Table 2 represents the output of multiple linear regression's processing both for SME financing and non-SME financing.

Table 2: The impact of internal and external factors on financing

	SME financing		Non-SME financing	
	Coefficient	Prob.	Coefficient	Prob.
DPK	1.828.602	0.0000	2.080842	0.0000
NPF	-0.04107	0.0821	-0.00848	0.3852
FDR	0.020815	0.0000	0.022359	0.0000
ROA	-0.08335	0.30585	-0.00967	0.26225
SBIS	-0.038396	0.3318	-0.05666	0.23405
INF	-0.012967	0.0765	-0.012846	0.06455
Y1 (SME financing)	-	-	-0.82874	0.00000
Y2 (Non-SME financing)	-0.90745	0.0000	-	-
Y1(-1)	0.309339	0.0000	0.0971	0.0749
C	-5.93086	0.0000	-7.70003	0.0000
	R-squared 0.983932		R-squared 0.997919	

Table 2 shows that all independent variables simultaneously influence both SME and non-SME financing. It is shown by the calculated F-value of 420.9886 for SME sector and 3293.509 for non-SME sector with the probability value of (0.0000) for both sectors. The impact of independent variables on SME financing amount to 98.39% and the remaining 1.61% is influenced by other variables outside this model. Meanwhile, the impact of independent variables on non-SME financing amount to 99.79% and the remaining 0.21% is influenced by other factors outside this model.

DPK is the biggest and reliable source of funds for the banks. The result of this research indicates that, partially, DPK has a positive impact significantly on both SME and non-SME financing. It is in line with the hypothesis and theory which state that DPK has a positive impact on total financing distributed by sharia banking industry. This result is also in accordance with the researches done by Asy'ari (2004), Pratama (2010), Rimadani dan Erza (2011), Siswati (2013) and Qolby (2013).

NPF measures the percentage of problematic financing against total financing provided by the bank. The result of

this research indicates that the impact of NPF on SME financing and non-SME financing is different. NPF has a negative impact significantly on SME financing. It is in line with the hypothesis and theory of NPF has a negative impact on financing. It happens because the higher the NPF ratio, the higher the risk of loan repayment failure by the debtors. This case will bring an impact on the banks' income. Therefore, in order to avoid this case, when the NPF ratio gets too high, the sharia banks will tighten their financing. This result is supported by the research result of Rimadhani and Erza (2011), Harmanta and Ekananda (2005), Pratama (2010), Roring (2013), Soedarto (2004), which reveal that NPF or Non-performing Loan (NPL) has a negative and significant impact on credit distribution or financing. However, NPF has a negative but insignificant impact on non-SME financing. It is because NPF ratio of non-SME financing is much smaller than the NPF ratio of SME financing thus it is perceived to not yet needed to be overly pressed.

FDR is a ratio used to measure the bank's capability in collecting and providing their funds to their costumers. The result of this research indicates that FDR has a positive and significant impact on both SME and non-SME financing. It is in line with the available hypothesis and theory of the higher the FDR or Loan Deposit Ratio (LDR), the higher the credit or financing channeled by the bank. The study by Ismulandy (2014) supports this result.

ROA is one of ratios that is useful for the measurement of bank's capability in generating profits relative to their total assets. This research finds that ROA has no impact on both SME and non-SME financing. Ismulandy (2014) and Putri (2015) support this result with the statement of ROA has no significant impact on credit distribution performed by the banks.

The external factors which can influence financing of sharia banks is SBIS's bonus rate determined by BI. This research also shows that SBIS's bonus rate has no impact on both SME and non-SME financing.

Other external factors which can influence financing of sharia banks is inflation. The result shown in this research is that inflation rate partially has negative impact significantly on both SME and non-SME financing. It is strengthened by the research reasult of Haryati (2009) and Martino (2014).

4.4 Managerial Implications

OJK need to pay more attention and do more monitoring toward the performance of sharia banking, especially BUS and UUS, and create a masterplan to enhance the market share of sharia banking. Besides, OJK is suggested to conduct further review about sharia banking's policy of providing more financing for non-SMEs rather than for SMEs and its impact on Indonesian economy, SME, and sharia banking industry. The designed masterplan is expected to maximize the intermediary function of sharia banking on SMEs' entrepreneurs but keep paying attention to the health of the banks at the same time. SME development strategy that engage sharia banking and other related institutions could also be designed in this masterplan.

BI is suggested to keep maintaining inflation rate. It is because inflation rate will affect customers and prospective customers related to their decision to invest their funds in the bank and/or borrow the funds from the bank which will have an impact on the bank's performance.

Sharia banking is recommended to: (1) arrange strategy to improve the profitability of sharia banking. As mentioned beforehand that the profitability of sharia banking (ROA) is still low so that its impact on financing by sharia banks is not visible during the analyzed period; (2) keep maintaining the FDR ratio so that it remains within safe limits and the liquidity risk could be kept away; (3) arrange a more effective and prudent strategy of SME financing so that in one side, the proportion of SME financing could be enhanced and on the other side, the NPF ratio could be lower.

Conclusion

Based on the results of this research, which aims to analyze the internal and external factors affecting the financing performed by sharia banks, it can be concluded that: (1) the financing performed by BUS and UUS in all provinces of Indonesia are relatively diverse. Most of financing are concentrated in Java Island, especially DKI Jakarta; (2) External (SBIS and INF) and internal factors (DPK, NPF1 or NPF2, FDR, and ROA) can simultaneously affect both SME and non-SME financing conducted by sharia banks. SME financing is affected by inflation (INF), DPK, NPF SME (NPF1), FDR, and non-SME financing (Y2). Consequently, sharia banking should consider those variables in performing SME financing. Non-SME financing is affected by inflation (INF), DPK, FDR, and SME financing (Y1). Accordingly, sharia banking should consider those variables in providing financing for SMEs.

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